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Location/Qualifiers
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Fax: 44 141 330 5102/4878
Email: gbga21@udcf.gla.ac.uk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Robertson Laboratory of Biotechnology
Institute of Biomedical and Life Sciences, Division of Molecular
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Stewart,G.J., Savioz,A. and Davies,R.W.
Sequence analysis of 497 mouse brain ESTs expressed in the
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97179215
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                                                                                                                                                                                                                                                                       /db_xref="taxon:10090"
/clone="spmp21 16.16"
/note="organ: brain; Vector: pSPORT1; Mouse Ventral Midbrain directional cDNA library in pSPORT1. The library the target nucleic acid population using VM mRNA as the driver nucleic acid population. The clones are of account of the clones are organized to the clones are organ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
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Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Musinae; Musina
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Pred. No. 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5267 TTTATTTTATTTTATTTTATTTTATGTCTTTCAGTGGAGTTGTAGCTTCTGAAAG 5326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 CTCCCCTCTTCAGCCAGGCTATGATAACACTAAAGGATTATTAATGCTTGGGTTCCGCAT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481 CTCATTTAA 489
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 TTTATTTTATTTTAATTTTTATTTCATTTTATGTCTTTCAGCGGAGTTGTAGCTTCTGAAAG 360
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 GCACATCAAGTGTTAACTCTGGGTTCTGGGCCAAGTTAGAAATAACCAGTCTATTTCCCC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 AATTGTCAGATCCAGTGGCATCTGTGCTCTTGCTGCACATCTTTCTATTTCAACTGGCTG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seq primer: M13-21.
                                                                                                                                                                             The Institute for Genomic Research
9712, Medical Center Drive, Rockvi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1998)
Contact: Lee, NH
                                                                                                                                                                           Tel: (301)-838-3529
                                                                                                                                                                                                                                   Rat Genome Project: Generation of a Rat EST (REST) Catalog & Rat
                                                                                                                                                                                                                                                                1 (bases 1 to 597)
Lee, N.H., Glodek, A., Chandra, I., Mason, T.M.,
                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                             Rattus sp.
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                                                                                                                                                                                                                                                                                                                                                                                                                                        AA944556
                                                                                                                                                             (301)-838-0208
/clone_lib="Normalized rat embryo, Bento Soares"
/dev_stage="embryo 8, 12, 18 dpc"
/note="Vector: pT7T3Pac; Site_1: EcoRI; Site_2: NotI"
                                                   /Organism="Rattus sp."
/db_xref="ATCC (inhost):2014020"
/db_xref="taxon:10118"
/clone="REMAL02"
                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                               Adams, M.D
                                                                                                                                                                                                                                                                                                                                                                                                                               597 bp
                                                                                                                                                                           Rockville, MD 20850, USA
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В Q 밁 δõ В DEFINITION AF176694 RESULT LOCUS 6121 6121 6061 AATTGCACTITCCAGCATCATGCTTCCTCCTTACAATATGATATTCTTTATTGTTACAC 6120 6061 AATTGCACTTTCCAGCATCATGCTTCCTTCCTTACAAATATGATATTCTTTATTGTTACAC 6120 TAAGGTGTTGATCATGTATCTGTCCCTGTAAAGAATTAATAAACTATTTTCCAGAC 6176 TAAGGTGTTGATCATGTATCTGTCCCTGTAAAGAATTAATAAACTATTTTCCAGAC 6176 Mus musculus neighbor of Punc ell protein (Nope) mRNA, AF176694 6176 bp mRNA linear ROD 27-APR-2000 complete

VERSION ACCESSION YWORDS

FRCE DRGANISM AF176694.1 GI:7650185 musculus

REFERENCE

MEDLINE TITLE JOURNAL PUBMED

JOURNAL TITLE AUTHORS

REFERENCE

source

FEATURES

gene

/db_xref="taxon:10090" /chromosome="9" /organism="Mus musculus"

"band D-E1; 24.59 cR from D9Mit143"

/strain="FVB"

Location/Qualifiers

Qy 밁 Qy В

361 301

CTGGCCCACAGCCCGCTAGGAGTGGTGGCCAGCCAGGTTGCTGTGGTCAAGCTTGCCACA

CTGGCCCACAGCCCGCTAGGAGTGGTGGCCAGCCAGGTTGCTGTGGTCAAGCTTGCCACA GACAGCGATGATGAGGAAGCTCTTAGGATCTGGAAGGTCACTGAGGGCAGCTATTCCTGT

420

CTCGAAGACTTCTCTCTGCACCCCGAGTCCCAGATTGTGGAGGAGAACGGGACAGCACGC CTCGAAGACTTCTCTCTCCACCCCGAGTCCCCAGATTGTGGAGGAGAACGGGACAGCACGC

В Š Вb

421 421 361

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481 481

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541 ACCGTGCCTGAGGAGCCCCGGCTCATCACTCTTCCCAAGTGGCTCCTCCAGATCCTAGAT

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TTTGAATGCCACACCAAGGGCCTTCCAGCCCCCATCATTACTTGGGAAAAGGACCAGGTG

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601 601

GTCCAGGACAGTGATGCAGGCTCCTACCGCTGCGTGGCCACCAATTCAGCCCGCCAACGA 660

661 661 CDS

GASRTSSPALVHTLDDVPSAAPQLTLSSPNPSDIRVAMLPLPSSLSNGQVLKYYKIEYG
LGKEDQVFSTEVPGNETQLTLNSLQPNRVYRVRLSAGTGAGYGVPSQWMQHRTPGVHN
QSHVPFAAPAELKVRAKMESLVVSWQPPPHPTQISGYKLYWGEVGTEEEADGDRPPGGR
GDQAWDVGPVRLKKKVKQYELTQLVPGRPYEVKLVAFNKHEDGYAAVWKGKTEKAPTP
DLPIQRGPPLPFAHVHAESNSSTSIWLRWKKPDFTTVKIVNYTVRFGPWGLRNASLVT

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841 GGAAAGCCTATCTCCACGGATGTCATCGTTCTGGGCCGGACCAATCTACTCATCGCCAGC 841 GGAAAGCCTATCTCCACGGATGTCATCGTTCTGGGCCGGACCAATCTACTCATCGCCAGC 900

900

CAGGATGTGGTCATTGTGGCAGCCCCAGAGAACACCACGGTAGTGTCTGGACAGAATGTA 780

TTCAGCCAGGAGGCCTCGCTCACTGTGGCCCTCAGAGGGTCTTTGGAGGCTACCAGGGGG TTCAGCCAGGAGGCCTCGCTCACTGTGGCCCTCAGAGGGTCTTTGGAGGCTACCAGGGGG

720

660

DTRYFFKWGARTEVGPGPESRLODVITLOETFSDSLDVHAVTGIIVGVCLGLLCLLAC MCAGLROSSHREALPGLSSSGTPGNPALYTRARLGPPSVPAAHELESLVHPRPQDWSP YYTSSGEDILIGGLKPFTKYEFAVQSHGVDMDGPFGSVVERSTLPDRPSTPPSDLRLS PLTPSTVRLHWCPPTEPNGEIVEYLILYSNNHTQPEHQWTLLTTEGNIFSAEVHGLES ORFSOEASLTVALRGSLEATRGODVVIVAAPENTTVVSGONVVMECVASADFTPFVSW
WRODGKEISTDYIVLGRUNLLIASAOPHHSGVYVGRANKPLTRODFATAAAELRVLAAP
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AISOAPEALSRTRASTARFVCRASGEPRPALHWLHDGIPLFLRPNGRVKYOGGGGSLVIT
OIGLODAGYYGCVAENSAGTACAAAPLAVVVREGLPSAPTRVTATPLSSSSVLVAWER
PELHSBOIIGFSLHYOKARGVDNVEYOFAVNNDTTELOVRDLEPNTDYEEYVVAXSOL

DDEEALRIWKVTEGSYSCLAHSPLGVVASQVAVVKLATLEDFSLHPESQIVEENGTAR

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FECHTKGLPAPIITWEKDQVTVPEEPRLITLPKWLLQILDVQDSDAGSYRCVATNSAR LGPEQAVVLDCTLGATAAGPPTRVTWSKDGDTVLEHENLHLLPNGSLWLSSPLEQEDS /product="neighbor of Punc ell protein" /protein_id="AAF65930.1" /db_xref="GI:7650186"

receptors.

/codon_start=1

/gene="Nope" /gene="Nope"

/note="immunoglobulin superfamily; related to guidance

Submitted (09-AUG-1999) The Neurosciences Institute, 10640 John Jay Hopkins Drive, San Diego, CA 92121, USA

Salbaum, J.M. 0708514 (bases 1 to 6176)

Direct Submission

Salbaum, J.M. and Kappen, C (bases 1 to 6176)

Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus Mus musculus

Cloning and expression of nope, a new mouse gene of the immunoglobulin superfamily related to guidance receptors Genomics 64 (1), 15-23 (2000)

Ω В Q 181 181 241

241 GAGAACCTGCACCTGCTACCCAATGGCTCCCTGTGGCTGTCCTCACCCCTAGAGCAAGAA GCTGCTGGGCCTCCGACCAGGGTGACATGGAGCAAGGATGGAGACACTGTACTAGAGCAT GAGAACCTGCACCTGCTACCCAATGGCTCCCTGTGGCTGTCCTCACCCCTAG

GCTGCTGGGCCTCCGACCAGGGTGACATGGAGCAAGGATGGAGACACTGTACTAGAGACAT

CTGCAAGTGATCCTGGGCCCTGAGCAGGCTGTGGTGCTGGACTGCACTTTGGGGGCCTACA 180

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61 CGCGGGGAGCTGCCATTGCCCCAGGAGACAACTGTCAAGCTGAGCTGTGATGAGGGACCC CGCGGGGAGCTGCCATTGCCCCAGGAGACAACTGTCAAGCTGAGCTGTGATGAGGGACCC 120 120

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Conservative 100.0%; 0 Pred. No. Score 6176; Mismatches 0 0 Indels 0; Gaps

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Length 6176;

DB 10;

ORIGIN

Query Match Matches 6176;

Local

Similarity

BASE COUNT

1316

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misc_feature

/gene="Nope"

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/note="unable to sequence region in mRNA" 1756 c 1634 g 1470 t

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3241 CAGGGTAGTGGTCCAAGGCCGGCTCTGACCCGTGCTCTGCTGCCTCCAGCGGGAACCGGG 3300 3181 TCCTGGGCTCAGGCAGGGGGACCAAACTGGGCAGGCTCCTGGGCAGGCTGTGAGCTGCCC 3240 3181 TCCTGGGCTCAGGCAGGCGACCAAACTGGGCAGGCTCCTGGGCAGGCTGTGAGCTGCCC 3121 GTACACAGCCTTATGGGTGGCAGTGTTTCAGATTGCCGGGGCCACTCCAAGAGAAAAAATC 3180 3121 GTACACAGCCTTATGGGTGGCAGTGTTTCAGATTGCCGGGGCCACTCCAAGAGAAAGATC 3061 GTGCATCCTCGCCCAGGATTGGTCCCCACCCACCCTCAGATGTGGAAGACAAGGCTGAA 3120 CCAGAAGCAGCCAGTGCCTGCTGCTCCTGCTCAGACCTGCAGGCCCAGCACTGCTATAGAG CCAGAAGCAGCCAGTGCCTCCTGCTCCTGCTCAGACCTCCAGCCCAGCACTGCTATAGAG CCGTCCCCAGCCTGCAGGAATCAGGTGGAAGCTGAGGTCATTGTCCACTCCGACTTCGGT 3420 3660 3600 3540

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121 CTGCAAGTGATCCTGGGCCCTGAGCAGGCTGTGGTGCTGGACTGCACTTTGGGGGGCTACA 180
                                            110 CGCGGGAGCTGCCATTGCCCCAGGAGACAACTGTCAAGCTGAGCTGTGATGAGGGACCC 169
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Submitted (11-DEC-2000) Junya Toguchida, Kyoto University, Institute for Frontier Medical Sciences; 53 Kawahara-cho, Sakyo-ku, Kyoto, Kyoto 606-8507, Japan (E-mail:togjun@frontier.kyoto-u.ac.jp, Tel:81-75-751-4134, Fax:81-75-751-4144)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       adhesion molecule are associated with transformation of osteoblasts
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murakami,H., Nakamata,T., Nakayama,T., Yamamoto,H., Hosaka,T., Aoyama,T., Nagayama,S., Oka,M., Kiyono,T., Sasaki,M.S., Nakamura,T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished
                                                                                                                                                    1319 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (sites)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 6219)
                                                                                                                                                                                                                                                                                                                                                                                          AISGAPEALSTTRASTARTVCRASGEPRELIMILHDGI PLEPMGRVKYGGGGSLVIT
QIGLODAGYYGOVAENSAGTACAAAPLAVVVRBGLPSAPTRVTATPLSSSVLVAWER
PELHSEQIIFSLHYGKARGVDNVSTOFAVNNDTTELGVPLLEPMTDYEFYVVAYSOL
GASRTSSFALVHTLDDVVSAAPQLITLSSPNPSDIRVAMLPLDSSLSNGOVLKYK IEYG
LOKEDOVESTEVPGNETQLTLNSLOPMKVYRVRISAGTGAGYGVPSQMMQHRTPGVHN
OSHVPFAPAELKVRAKMESLVVSMQPPPHPTQLSGYKLYWREVGTEBEADGDRPPGGR
GDQAMDVGFVRLKKVKOYELTQLVPGRLYEVYLVAFNKHEDGYAAVWGKTEKAPTP
DLPIGRGPPLPPAHVHAESNSTSIMLRMKKPDFTTVKIVNTVRFGPWGLKNASLVT
YTTSGEDILIIGGLKPFTKYEFAVQSHGVDMGPFGSVVERSTLPDBRPSTPPSDLRILS
TYTSGEDILIIGGLKPFTKYEFAVQSHGVDMGPFGSVVERSTLPDBRPSTPPSDLRILS
                                                                                                                                     SASCSCSDLQPSTAIEEAPGKSCQPKALCPLTVSPSLPRAPVSSAQVP
                                                                                                                                                                                         PPSDVEDKAEVHSLMGGSVSDCRGHSKRKISWAQAGGPNWAGSWAGCELPOGSGPRPA
LTRALLPPAGTGOTLLLQALVYDAIKSNGRKKPSPACRNQVEAEVIVHSDFGASKGCP
DLHLQDLEPEEPLTAETLPSTSGAVDLSQGADWLGRELGGCQPTTSGPERLTCLPEAA
                                                                                                                                                                                                                                                                                      PLTPSTVRLHWCPPTEPNOEIVEYLILYSNNHTOPEHOWTLLTTEGNIFSAEVHGLES
DTKYEFKMGARTEYGPGDFSRLODVITLOKTESDSLDVHAVTGIIVGVCLGLLCLLAC
MCAGLRRSSHREALPGLSSSGTFGNPALTTRARLGPSVPAAHELESLVHPRPDDWSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LGPEQAVVLDCTLGATAAGPPTRVTWSKDGDTVLEHENLHLLNGSLMLSSPLEQEDS
DDEEALRIWKVTEGSYSCLAHSPLGVVASQVAVVKLATLEDESLHPESQIVEENGTAR
FECHTYGLPAPITTRKKDQVTVPEESRLITLNGVLQILDVQDSDAGSYRCVATNSAR
QRFSQEASLTVALRGSLEATRQDVVLVAAPENTTVVSGQSVVMECVAAADPTPFVSQ
VRQDGKRISTDVIVLGATNLLLASAQPRHSGYYVCRANKPRTRDFATAAAELRVLAAP
VRQDGKRISTDVIVLGATNLLLASAQPRHSGYYVCRANKPRTRDFATAAAELRVLAAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          translation="MARADTGRGLLVLTFCLLSARGELPLPQETTVKLSCDEGPLQVI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /protein_id="BAB19278.1"
/db_xref="GI:11862939"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="DDM36"
50. .3808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="DDM36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="similar to Nope (NP_064427)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="DDM36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="similar to Nope (NM_020043)~vector:pDDM36ORF"
1. .6219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ∕organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cell_type="osteoblast"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /strain="C57BL/CBA'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
97.8%;
99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _line="MMC2"
Score 6038.8;
Pred. No. 0;
                          DB 10; Length 6219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shogoin,
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